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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,733	01/18/2002	Mu-III Lim	CP-1221	3203
27752	7590	06/21/2005	EXAMINER	
THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION WINTON HILL TECHNICAL CENTER - BOX 161 6110 CENTER HILL AVENUE CINCINNATI, OH 45224			HARDEE, JOHN R	
			ART UNIT	PAPER NUMBER
			1751	
DATE MAILED: 06/21/2005				

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/052,733
Filing Date: January 18, 2002
Appellant(s): LIM ET AL.

Michael J. Sambrook
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 6, 2005.

MAILED
JUN 21 2005
GROUP 1700

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Only one claim is under appeal.

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5,073,174 VAYSSIE et al. 12-199

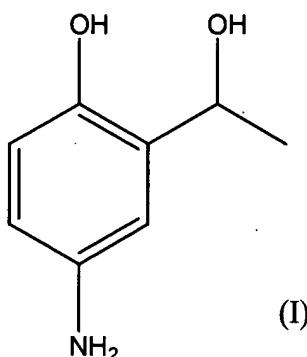
(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

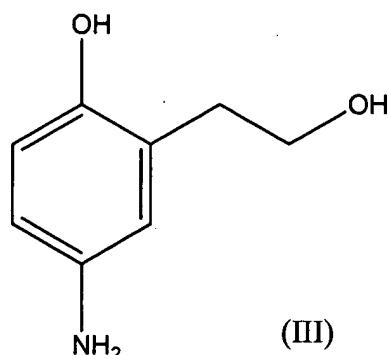
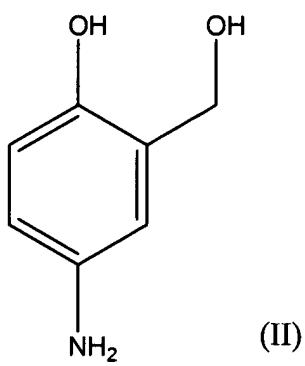
Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vayssie et al., US 5,073,174. At col. 3, lines 41-42, the reference discloses that 2-hydroxymethyl-4-aminophenol and 2-(beta-hydroxyethyl)-4-aminophenol are useful hair dye precursors. The reference does not disclose the compound recited by appellant. However, it would have been obvious at the time that the invention was made to use this compound as a hair dye intermediate, because the reference discloses that a one-carbon homolog of the compound and a simple structural isomer of the compound have the same utility as that disclosed by appellant. The person of ordinary skill in the dyeing art would expect the recited compound to have similar properties, absent unexpected results.

(11) Response to Argument

The issue is whether appellant's claimed compound, 4-amino-2-(1-hydroxyethyl)phenol (I),



is obvious over either or both of two compounds cited in the reference. One of the cited compounds, (II), is a one-carbon lower homolog (-CH₂-) of the claimed compound, and the other, (III), is a simple positional isomer of claimed compound (I).

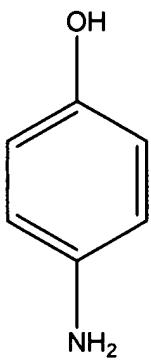


Appellant cites *Grabiak* in support of his argument of non-obviousness, noting that an oxygen atom in an ester moiety was found not to be equivalent to a sulfur atom.

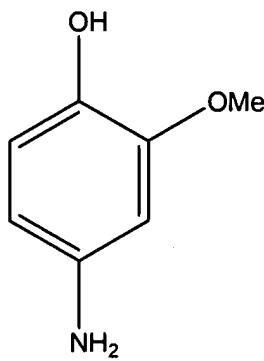
Art Unit: 1751

This is not persuasive because the examiner is not basing his case of obviousness on a willy-nilly substitution of one hetero atom for another. Instead, prior art compound (II) has a carbon chain which is one carbon shorter than the chain of the claimed, making the prior art compound a simple one-carbon higher homolog. Thus, *Grabiak* is not on point. Likewise, prior art compound (III) has the hydroxyl group beta to the ring rather than alpha, on an otherwise identical carbon chain.

Appellant further argues that the claimed compound is a secondary alcohol, while the cited compounds are primary alcohols; that the reactivities of these alcohols are different; and that the reference does not teach the equivalence of secondary and primary alcohols. These arguments are well taken, but they are not persuasive because the reference also discloses as equivalents such compounds as para-aminophenol (IV) and 2-methoxy-4-aminophenol (V). Compound (IV) lacks any alcoholic side chain, and compound (V) has a highly unreactive ether group. Taking the reference as a whole, the



(IV)



(V)

person of ordinary skill in the chemical or dyeing art would fairly infer that the dyeing reactivity of the disclosed compounds is entirely attributable to the much more reactive

phenolic and amino groups, and that an alcoholic side chain, primary or secondary, is a spectator.

Appellant further argues that the claimed compound presents an ideal geometry for internal hydrogen bonding, which results in improved photochemical stability of dyes resulting from use of (I) in a dye composition. This is not persuasive for several reasons: The presence or absence of internal hydrogen bonding is a matter of speculation on the part of appellant. This could be demonstrated by submission of appropriate spectral data, which appellant has not provided. However, prior art compound (II) has the same geometry, so any such hydrogen bonding or stability of the resulting dye would not constitute an unexpected property vis-à-vis the prior art. At the bottom of p. 2 of the specification, appellant states that dyes made with (I) have "acceptable light fastness". No superior results are suggested. Furthermore, upon reactivity with the other dye ingredients, the phenolic group would no longer be present and would be unable to confer any such photochemical stability. Finally, appellant has presented no evidence of such stability, much less a comparison with the closest prior art.

Appellant argues that the reference does not present any motivation to modify the disclosure to arrive at the claimed compound. The examiner takes the position that the structural similarities of compounds (II) and (III), as a one-carbon lower homolog and a simple positional isomer, of the disclosed compounds are the motivation, and no explicit guidance need be present in the reference. *In re Shetty*, 195 USPQ 753; *In re Wilder*, 195 USPQ 426.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



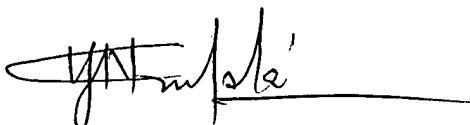
John R. Hardee
Primary Examiner
Art Unit 1751

jrh
June 15, 2005

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